MAXWELL JONES

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EDUCATION

Carnegie Mellon University, Pittsburgh, PA

Bachelor of Science in Artificial Intelligence

Additional Major in Mathematics

Thomas Jefferson High School for Science and Technology, Alexandria, VA

High School Diploma

Expected Graduation: May 2023

GPA: 4.0/4.0

2015-2019

GPA: 4.1/5.0

PROJECTS

MIT BattleCode January 2021

- Worked on team of 4 to code an AI bot in java to compete in a tournament run every year by MIT.
- Helped implement different strategies, write code, and test over the month-long tournament.
- Placed 9th out of over 200 submissions, with an end product of over 1500 lines of code.

Walksafe | CMU TartanHacks

February 2020

- Developed a Python program on team of 4 that calculates safe and efficient walking paths at night in New York City.
- Created a weighted graph from crime and street data and implemented an A* algorithm to generate optimal paths.
- Integrated Open Street Map API and fetched data from NYPD crime database REST endpoint.

Football Predictions with Linear Algebra

December 2019

- Used Massey and Keener mathematical models to predict NFL playoff outcomes given regular season data.
- Implemented models with Jupyter Notebook and Julia and accurately predicted super bowl winner in 2009.

Origami Social Network

August 2018-May2019

- Developed a Node.js application that allows origamists to connect with each other and share their work
- Implemented user accounts, used MD5 hashing to safely store passwords, added cookies to store login data.
- Created a Python program to allow users to design and store crease patterns of their models.

EXPERIENCE

Data Science Intern / Fiat Chrysler Automobiles

Summer 2020

- Optimized the HR absentee prediction model in Python resulting in a 2% increase in accuracy.
- Improved neural network performance by cross referencing crew attendance across plants.
- Queried data from PostgreSQL database and used Pandas dataframe library to store query results.

Teaching Assistant / 15-151 Concepts in Mathematics for Computer Scientists

Fall 2020

- Teach 20-student recitation twice per week and help create problems for homework and tests.
- Lead review Sessions and game nights with >100 people per event
- Host weekly office hours, grade homework and exams, and attend weekly staff meetings.

SKILLS

Programming: Python, Java, C, SQL, Julia, JavaScript, HTML, Latex

Tools/Frameworks: Sklearn, Keras, NumPy, Jupyter Notebook, Pandas, Git, Unix Command Line

Coursework: 15-281 Artificial Intelligence, 10-315 Machine Learning, 15-213 Computer Systems, 15-251 Great Theoretical Ideas in Computer Science, 15-150 Functional Programming, 15-122 Principles of Imperative Computation, 21-325 Probability Theory, 21-260 Differential Equations, 15-151 Concepts in Mathematics, 21-484 Graph Theory.

INVOLVEMENT

Treasurer for SPIRIT, CMU Black Student Organization, Origami Club Officer, CMU SCS Social Media Ambassador, Club Basketball, Kappa Sigma Fraternity.